



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,221	12/01/2003	Hiroshi Kamohara	0171-1044P	9834
2292	7590	07/01/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PENG, KUO LIANG	
			ART UNIT	PAPER NUMBER
			1712	
DATE MAILED: 07/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,221

Applicant(s)

KAMOHARA ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/12/05 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Applicants' amendment filed on April 12, 2005 was received. Claim 1 is amended. Claims 5-19 are added. Now, Claims 1-19 are pending.
2. In view of Applicants' amendment, Claim rejection(s) under 35 USC 102 in the previous Office Action (Paper No. 0105) is/are moot.
3. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office Action (Paper No. 0105).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claim 18 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the use of 2,4-dichlorobenzoyl peroxide

Art Unit: 1712

(page 10, line 17), does not reasonably provide enablement for the use of 1,4-dichlorobenzoyl peroxide. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 102

6. Claims 1-5, 8-9 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Torto (WO 00/61074).

The following column and line numbers are based on Torto's US equivalent, US 6 762 242.

Torto discloses a dental impression composition comprising a Si-alkenyl functional polysiloxane (POS(1)), a Si-H containing polysiloxane (POS(2)) and a surfactant of polyalkylene oxide. (col. 1, lines 7-38, col. 3, line 24 to col. 4, line 3, col. 5, line 61 to col. 6, line 10 and Examples) POS(1) can comprise siloxy units of formula 1.1 and siloxy units of formula 1.2. (col. 7, line 1 to col. 8, line 56) Note that in POS(1), Z can be methyl, ethyl or phenyl radicals with as low as 60 mole% of Z being methyl radicals. (col. 7, lines 42-44) Furthermore, Z in formula 1.2 can be exemplified as methylphenylsiloxyl, diphenylsiloxyl and dimethylsiloxyl. (col.

Art Unit: 1712

7, lines 48-50) Therefore, Torto does teach that up to 40 mole% of the Z can be a phenyl group. The amount of the surfactant is described in col. 6, lines 50-60.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-7 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chikuni (US 5 786 414).

For Claims 1-3, 5-7, 17 and 19, Chikuni discloses a curable composition comprising an organopolysiloxane, which can be an organic peroxide curing type, a condensation curing type, a platinum catalyzed addition type, etc. (col. 2, lines 7-19) For the condensation curing type curable composition, an organopolysiloxane end-capped with hydroxy groups and a crosslinking agent can be used. For the platinum addition curing type curable composition, an organopolysiloxane having alkenyl groups and an organohydrogenpolysiloxane can be used. For the organic

Art Unit: 1712

peroxide curing type curable composition, an organopolysiloxane having vinyl groups and an organic peroxide such as benzoyl peroxide and 2,4-dichlorobenzoyl peroxide can be used. (col. 2, line 37 to col. 3, line 52 and Examples) Chikuni teaches that the organopolysiloxane can contain phenyl groups (col. 2, lines 21-36), which can further be exemplified as an organopolysiloxane containing 5 mol% of diphenylsiloxane units. (Example 7) Chikuni further teaches the use of polyethylene glycol as a thixotropic agent. (col. 5, lines 26-40) Chikuni is silent on the degree of polymerization or the amount of the polyethylene glycol. However, note that the degree of polymerization or the amount of the polyethylene glycol will affect the thixotropic property and/or the viscosity of the composition. In other words, the degree of the polymerization and the amount of the polyethylene glycol are Result-Effective variables. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a polyethylene glycol having whatever degree of polymerization and a polyethylene glycol in whatever amount through routine experimentation in order to obtain a composition with a desired thixotropic property and/or a desired viscosity. Especially, Applicants do not show the criticality of such a degree of polymerization. See MPEP 2144.05 (II). For Claim 4, the phrase “for use as dental impression material” is merely an intended use, and does not carry any weight of

Art Unit: 1712

patentability. For Claims 12-15, Chikuni further teaches the use of the curable composition in a building member. (col. 1, lines 6-9)

For Claim 16, Chikuni is silent on the amount of phenyl group in the organopolysiloxane. However, unless Applicants can show the criticality of the specific amount of the phenyl group set forth in the instant claim, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize an organopolysiloxane having whatever amount of phenyl group in order to obtain whatever desired properties. For Claim 18, as mentioned previously the organic peroxide can be benzoyl peroxide and 2,4-dichlorobenzoyl peroxide can be used.

10. Claims 1-2, 4, 7-8, 11-12, 15-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitzsche (US 3 070 566) in view of Bryan (US 4 657 959) or Chikuni.

Nitzsche discloses a composition comprising a hydroxy-containing diorganopolysiloxane, a crosslinking agent and a catalyst. (col. 1, lines 55-61 and Examples) The amount of the phenyl group in the diorganopolysiloxane can be exemplified in Examples. The composition can be used in a dental impression composition, a building composition, etc. (col. 4, lines 26-31) Nitzsche is silent on

Art Unit: 1712

the use of a polyether set forth in the present invention. However, it is well known that the surface properties of a dental impression material is very important.

Furthermore, Bryan teaches the use of a polyether in a silicone dental impression material. The motivation is to adjust the surface properties such as water contact angle of the dental impression material. (col. 1, lines 5-10, col. 5, line 56 to col. 6, line 38, Table 1) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Bryan's polyether into Nitzsche's composition. Furthermore, it is well known to add an polyethylene glycol in a building member composition. For example, Chikuni teaches a polyethylene glycol as a thixotropic agent in a building member composition, *supra*. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the polyethylene glycol into Nitzche's building member composition. Chikuni is silent on the degree of polymerization or the amount of the polyethylene glycol. However, note that the degree of polymerization or the amount of the polyethylene glycol will affect the thixotropic property and/or the viscosity of the composition. In other words, the degree of the polymerization and the amount of the polyethylene glycol are Result-Effective variables. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a polyethylene glycol

Art Unit: 1712

having whatever degree of polymerization and a polyethylene glycol in whatever amount through routine experimentation in order to obtain a composition with a desired thixotropic property and/or a desired viscosity. Especially, Applicants do not show the criticality of such a degree of polymerization. See MPEP 2144.05 (II).

11. Claims 1-6, 8-10 and 17-18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxman (US 5 415 544) in view of Chikuni.

Oxman discloses a dental impression composition comprising a vinyl polysiloxane. (Example 2) Since Chikuni's composition can be a vinyl containing polysiloxane cured by a peroxide or Si-H containing polysiloxane and a polyethylene glycol, *supra*. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Chikuni's composition for preparing Oxman's dental impression. Chikuni further teaches the use of polyethylene glycol as a thixotropic agent. (col. 5, lines 26-40) Chikuni is silent on the degree of polymerization or the amount of the polyethylene glycol. However, note that the degree of polymerization or the amount of the polyethylene glycol will affect the thixotropic property and/or the viscosity of the composition. In other words, the degree of the polymerization and the amount of the

Art Unit: 1712

polyethylene glycol are Result-Effective variables. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a polyethylene glycol having whatever degree of polymerization and a polyethylene glycol in whatever amount through routine experimentation in order to obtain a composition with a desired thixotropic property and/or a desired viscosity. Especially, Applicants do not show the criticality of such a degree of polymerization. See MPEP 2144.05 (II).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

Art Unit: 1712

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 10/724,221

Page 11

Art Unit: 1712

klp

June 24, 2005


Kuo-Liang Peng
Primary Examiner
Art Unit 1712